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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Akiko Taira

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12/16/2004

WENDEROTH, LIND & PONACK, L.L.P.

2033 K STREET N. W.

SUITE 800

WASHINGTON, DC 20006-1021

EXAMINER

COMAS, YAHVEH


ART UNIT

PAPER NUMBER

2834

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/985,823	TAIRA ET AL.	
	Examiner	Art Unit	
	Yahveh Comas	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10,13-16 and 18-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10,13-16 and 18-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Response to Arguments***

Applicant's arguments filed 11/18/2004, regarding the fuller reference can not be combined with the Hale reference have been fully considered but they are not persuasive.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Fuller discloses the claimed invention except for the number of poles of the stator being different. However, Fuller suggest that the various pumping elements are driven at different speeds. Hale, in the other hand, suggests the use of different number of poles in order to produce a difference in the motor revolution. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide different number of poles to produce a difference in the motor revolution as suggested by Hale in view of Fuller motivation of having different speeds.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642

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F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 10, 13-16 and 18-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over P.W. Fuller U.S. Patent No. 1,071,042 in view of Hale U.S. Patent No. 3,862,444 and in further view of Oberheide U.S. Patent No. 4,988,930.

Fuller discloses a casing having an inlet (17) and exhaust port (18), a plurality of motors arranged in said casing, each motor including, and a rotor

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(21,29 and 38) rotatably supported on said stator (20, 28 and 37) said motor being arranged such that said rotor of each of said motors rotates about common axis of rotation, a plurality of rotating members (1, 2 and 3) arranged within said casing and adjacent to each other in an axial direction along said common axis of rotation so as to share said common axis of rotation, each of said rotating member being attached to a corresponding rotor of one of said motor, and a plurality of bearings (26 and 27) rotatably supporting said rotating member so that said rotating members rotate independently. Each of said rotating members has a set of blades (15, 5 and 9) to be rotated by a corresponding one of said motors (for example column 2 lines 86-100). Fuller disclose the claimed invention except for:

- Stator having a different number of poles
- The plurality of motors includes a first motor having two-pole stator winding, a third motor having a twelve-pole stator winding, and a second motor having a six-pole winding and being arranged between said first motor and said third motor.
- A common power circuit operable to raise a rotational speed of each of said motors from initial rotational speed of zero to a respective rated rotational speed.

Hale discloses the use of a plurality of stators having different number of poles in order to vary the revolution between motors connected in parallel to slip ring assembly (66) by a lead (68) for the first stator winding (57) and a lead (70)

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for a second stator winding (63) winding wherein the motors have the same voltage and the same rate frequency (column 4 lines 36-64 and figure 1).

Oberheide discloses a common power circuit (66) operable to raise a rotational speed of each of said motors from initial rotational speed of zero to a respective rated rotational speed for the purpose of provide more than one selectable speed to the air flow.

Regarding claims 14, 19, 21 and 23, Hale discloses the changing the number of poles produce a difference in the motors revolution. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a different number of poles between the motors, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding to the arrange of each stator, Fuller discloses that the pumping elements are independent from each other and are intended to be rotated at a different speeds. Hale as disclosed above discloses the use of different number of poles in order to provide different speed between motors. Its has been held that the arranging the motors by the number involves only routine skill in the art since, as disclosed by Fuller, each motor will have different speeds and are connected physically one in top of the other (column 2, lines 91-95 and Fig. 1-4). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to arrange the stators from the smallest number

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of poles to the largest number of poles, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Regarding to claim 20, Fuller discloses that his invention relates to rotary pumps. Therefore, it would have been obvious to one having skill in the art at the time the invention was made to use the vacuum pump as a turbo-molecular pump since it was known in the art that a turbo-molecular pump is a rotary pump.

Regarding claim 24, Fuller, as modified above, discloses the claimed invention except for the frequency of the exciting current was 500Hz. Excitation current with a frequency is supplied to the stator coils, therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a frequency of 500Hz, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Therefore, it would have been obvious to one having skill in the art at the time the invention was made to provide a different number of poles in the stator in order to vary the number of revolutions between motors as disclosed by Hale, and provide a common power circuit operable to raise a rotational speed of each of said motors from initial rotational speed of zero to a respective rated rotational speed as disclosed by Oberheide since Fuller discloses that the pumping elements are independent from each other and are intended to rotate at different speeds (column 2, lines 90-110) and therefore changing the number of poles and having a common power circuit operable to raise a rotational speed of

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each of said motors from initial rotational speed of zero to a respective rated rotational speed would have been desirable to provide a difference between the revolution of said motors as disclosed by Hale and more than one selectable speed to the air flow as disclosed by Oberheide.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yahveh Comas whose telephone number is (571)272-2020. The examiner can normally be reached on 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YC


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